

10/532,511

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	492	(556/11).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/11/28 12:08
L2	521	(556/12).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/11/28 12:29
L3	1894	(502/103).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/11/28 12:58
L4	2265	(502/117).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/11/28 13:25
L5	2292	(526/160).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/11/28 13:50
L6	1949	(526/943).CCLS.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/11/28 13:50

10/532,511

(FILE 'HOME' ENTERED AT 11:03:50 ON 28 NOV 2005)

FILE 'REGISTRY' ENTERED AT 11:05:05 ON 28 NOV 2005

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 11:05:33 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 109 TO ITERATE

100.0% PROCESSED 109 ITERATIONS

4 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 1554 TO 2806

PROJECTED ANSWERS: 4 TO 200

L2 4 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 11:05:37 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1997 TO ITERATE

100.0% PROCESSED 1997 ITERATIONS

83 ANSWERS

SEARCH TIME: 00.00.01

L3 83 SEA SSS FUL L1

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

161.33

161.75

FILE 'CAPLUS' ENTERED AT 11:05:42 ON 28 NOV 2005

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FILE COVERS 1907 - 28 Nov 2005 VOL 143 ISS 23

FILE LAST UPDATED: 27 Nov 2005 (20051127/ED)

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<http://www.cas.org/infopolicy.html>

=> s l3

L4 283 L3

=> s l3/prep
283 L3
3389681 PREP/RL
L5 47 L3/PREP
(L3 (L) PREP/RL)

=> d 1-47 bib abs

L5 ANSWER 1 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:300458 CAPLUS
DN 142:355401
TI Process for the isomerization of metallocene compounds
IN Guidotti, Simona; Balboni, Davide
PA Basell Polyolefine G.m.b.H., Germany
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005030783	A1	20050407	WO 2004-EP10020	20040907
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRAI EP 2003-103599 A 20030929
US 2003-509892P P 20031009

AB An isomerization process comprising the step of contacting a slurry or a solution comprising the meso or meso-like form of one or more bridged metallocene compds. of group 4 of the Periodic Table of the Elements having C2 or C2-like symmetry with an isomerization catalyst [R4W]+X- (W = N, P; R = equal to or different from each other, are C1-C40 hydrocarbon radicals and X- is an halide atom), is described. Thus, Bu4NBr catalyzed isomerization of (2.4/97.6) rac/meso mixture of dimethylsilanediyl[2-methyl-4-(4'-tert-butylphenyl)indenyl][2-isopropyl-4-(4'-tert-butylphenyl)indenyl]dimethylzirconium gave (94.0/6.0) rac/meso mixture in 5h at 65°.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:996195 CAPLUS
DN 141:411089
TI Process for the production of halide metallocene compounds
IN Guidotti, Simona; Balboni, Davide
PA Basell Polyolefine GmbH, Germany
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004099225	A1	20041118	WO 2004-EP4525	20040429
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

PRAI EP 2003-101268 A 20030508
US 2003-469191P P 20030509

OS CASREACT 141:411089; MARPAT 141:411089

AB Process for preparing halide metallocene compds. comprising the step of reacting the dialkyl derivative with a halogenating agent of formula R_3xTLw ($L = Cl, I, Br$; $R_3 = H$, hydrocarbon group; $T =$ metal of groups 2-14 of the periodic table of the elements; $x = \geq 1$ so that $x+w$ is equal to the oxidation state of the metal T). Thus, reaction of dimethylsilanediyl[2-methyl-4-(4'-tert-butylphenyl)indenyl][2-isopropyl-4-(4'-tert-butylphenyl)indenyl]dimethylzirconium with $EtAlCl_2$ in PhMe at 60° for 40 min. gave a mixture of rac/meso dimethylsilanediyl[2-methyl-4-(4'-tert-butylphenyl)indenyl][2-isopropyl-4-(4'-tert-butylphenyl)indenyl]zirconium dichloride.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:920725 CAPLUS

DN 142:74678

TI Chelate-Controlled Synthesis of Racemic ansa-Zirconocenes

AU LoCoco, Matthew D.; Zhang, Xingwang; Jordan, Richard F.

CS Department of Chemistry, University of Chicago, Chicago, IL, 60637, USA

SO Journal of the American Chemical Society (2004), 126(46), 15231-15244

CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

OS CASREACT 142:74678

AB Reaction of $Zr\{PhN(CH_2)_3NPh\}Cl_2(THF)_2$ (5) with lithium ansa-bis(indenyl) reagents $Li_2[XBI](Et_2O)$ ($XBI = (1-indenyl)_2SiMe_2$ (SBI, 7a), (2-methyl-1-indenyl) $_2SiMe_2$ (MSBI, 7b), (2-methyl-4,5-benz-1-indenyl) $_2SiMe_2$ (MBSBI, 7c), (2-methyl-4-phenyl-1-indenyl) $_2SiMe_2$ (MPSBI, 7d), and 1,2-(1-indenyl) $_2$ ethane (EBI, 7e)) affords rac-(XBI) $Zr\{PhN(CH_2)_3NPh\}$ (8a-e) in high yield. The meso isomers were not detected by 1H NMR. X-ray crystallog. studies show that the $Zr\{PhN(CH_2)_3NPh\}$ rings in 5, 8a, 8c, and $(C_5H_5)_2Zr\{PhN(CH_2)_3NPh\}$ (10) adopt twist conformations that position the N-Ph groups on opposite sides of the N-Zr-N plane. This conformation complements the metallocene structures of rac-8a-e but would destabilize the corresponding meso isomers. It is proposed that the $Zr\{PhN(CH_2)_3NPh\}$ ring adopts a similar twist conformation in the stereo-determining transition state for addition of the second indenyl ring in these reactions, which leads to a preference for racemic products. The results of metallocene syntheses from other Zr amide precursors support this proposal. Complexes 8a-e are converted to the corresponding rac-(XBI) $ZrCl_2$ complexes (9a-e) by reaction with HCl.

RE.CNT 104 THERE ARE 104 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:370944 CAPLUS

DN 140:391377

TI Racemoselective synthesis of rac-diorganosilylbis(2-methylbenzo[e]indenyl)zirconium compounds

IN Damrau, Hans-Robert-Hellmuth; Mueller, Patrik; Garcia, Valerie; Sidot, Christian; Tellier, Christian; Lelong, Jean-Francois

PA Basell Polyolefine G.m.b.H., Germany

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

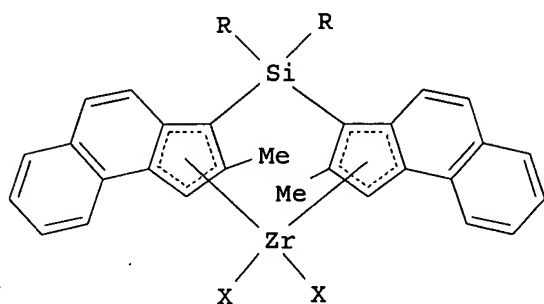
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004037840	A1	20040506	WO 2003-EP11681	20031022

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CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10250060 A1 20040506 DE 2002-10250060 20021025
EP 1554297 A1 20050720 EP 2003-775212 20031022

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRAI DE 2002-10250060 A 20021025
US 2002-431805P P 20021209
WO 2003-EP11681 W 20031022
OS CASREACT 140:391377; MARPAT 140:391377
GI



I

AB The present invention relates to a specific process for the diastereoselective synthesis of racemic diorganosilylbis(2-methylbenzo[e]indenyl)zirconium compds. I, by reacting the silyl-bridged bisindenyl ligand with a dihalozirconiumbis(3,5-di-tert-butylphenoxide) base adduct to form the diorganosilylbis(2-methylbenzo[e]indenyl)zirconium bis(3,5-di-tert-butylphenoxide) and subsequently replacing the phenoxide groups by X using suitable replacement reagents to give the compound I; where the substituents X can be identical or different and are each F, Cl, Br, I or linear, cyclic or branched C1-10-alkyl; and the substituents R can be identical or different and are each linear, cyclic or branched C1-10-alkyl or C6-10-aryl; and also to the use of these compds. as catalysts.

L5 ANSWER 5 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:370943 CAPLUS

DN 140:391376

TI Racemoselective preparation of isolable ansa-metallocene biphenoxide complexes

IN Damrau, Hans-Robert-Hellmuth; Mueller, Patrik; Garcia, Valerie; Sidot, Christian; Tellier, Christian; Lelong, Jean-Francois

PA Basell Polyolefine G.m.b.H., Germany

SO PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

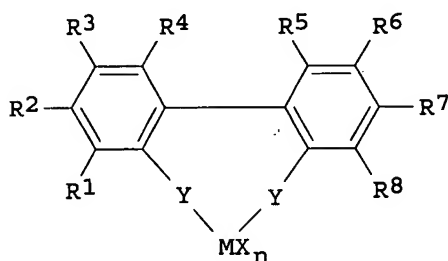
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004037839	A1	20040506	WO 2003-EP11680	20031022
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GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
 PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
 TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10250061 A1 20040506 DE 2002-10250061 20021025
 EP 1554296 A1 20050720 EP 2003-775211 20031022

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRAI DE 2002-10250061 A 20021025
 US 2002-432202P P 20021210
 WO 2003-EP11680 W 20031022
 OS CASREACT 140:391376; MARPAT 140:391376
 GI



I

AB The invention relates to a process for preparing racemic metallocene biphenoxide complexes I (M = Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, rare earth, etc.; X = F, Cl, Br, I, H, C1-10 alkyl, C6-15 aryl, (un)substituted alkylaryl, n = 1-4 and corresponds to valance of M-2; R1, R2, R4, R5, R7, R8 = H, F, Cl, Br, I, C1-20 alkyl, (un)substituted 3-8 membered cycloalkyl, etc.; R3, R6 = same or different H, organoalkoxy, organothio, organoamino, organophosphino, organosilyl, etc.; Y = organometal, organodimetal, alkylidene, alkoxymetal, etc.) by reacting bridged transition metal complexes with cyclopentadienyl derivs. of alkali metals or alkaline earth metals and heating the reaction mixture obtained in this way to a temperature in the range from -78-250°, to the corresponding metallocene biphenoxide complexes and to their use as catalysts or as constituents of catalysts for the polymerization of olefinically unsatd. compds. or as reagents or catalysts in stereoselective synthesis. Thus, preparation of dimethylsilylbis(2-methylindenyl)zirconium 3,3'-di-tert-butyl-5,5'-dimethoxy-1,1'-bi-2-phenoxide is given in several steps starting from ZrCl4(THF)2 and dilithium salt of 3,3'-di-tert-butyl-5,5'-dimethoxy-1,1'-bi-2-phenoxide.

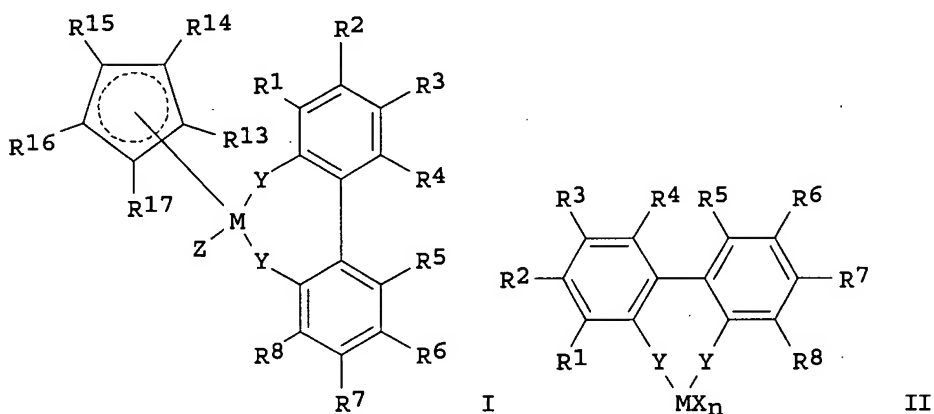
L5 ANSWER 6 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:367256 CAPLUS
 DN 140:391375

TI Process for the racemoselective preparation of isolable ansa metallocene biphenolato complexes with shorter isomerization times
 IN Damrau, Hans-Robert-Hellmuth; Sidot, Christian; Garcia, Valerie; Mueller, Patrik; Lelong, Jean-Francois; Tellier, Christian
 PA Basell Polyolefine GmbH, Germany
 SO Ger. Offen., 26 pp.
 CODEN: GWXXBX
 DT Patent
 LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10250061	A1	20040506	DE 2002-10250061	20021025

WO 2004037839 A1 20040506 WO 2003-EP11680 20031022
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GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
EP 1554296 A1 20050720 EP 2003-775211 20031022
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
PRAI DE 2002-10250061 A 20021025
US 2002-432202P P 20021210
WO 2003-EP11680 W 20031022
OS CASREACT 140:391375; MARPAT 140:391375
GI



AB Racemic metallocene biphenolato complexes I [R1, R2, R4, R5, R7, R8 = H, halo, C1-20 alkyl, C3-8 cycloalkyl, C6-15 aryl, OR10, SR10, N(R10)2, P(R10)2, Si(R10)3; R3, R6 = H, OR11, SR11, N(R11)2, P(R11)2, Si(R11)3; R10 = hydrocarbyl; R11 = C1-20 alkyl, C3-8 cycloalkyl; R12 = H, halogen, hydrocarbyl; R13, R14, R15, R16, R17 = H, C1-20 alkyl, C5-7 cycloalkyl, etc.; R18 = C1-10 alkyl, C3-10 cycloalkyl, C6-15 aryl; M = Ti, Zr, Hf, V, Ni, Ta, Cr, Mo, W, Row III elements, lanthanides; M1 = Si, Ge, Sn; Y = M1(R12)2, M1(R12)2M1(R12)2, M1(R12)2C(R12)2, C(R12)2 OM1(R12)2, C(R12)2C(R12)2, BR12, AlR12, Ge, Sn, O, S, S(:O), SO2, NR12, C(:O), PR12, P(:O)R12, preferably O; Z = (un)substituted cyclopentadienyl, optionally linked to R16], useful as catalysts or as components of catalysts for the polymerization of olefinic unsatd. compds. or as reagents or catalysts in stereoselective synthesis (no data), are prepared by reaction of bridged transition metal complexes II [X = F, Cl, Br, I, H, C1-10 alkyl, C6-15 aryl, (C1-10 alkyl)-(C6-20 aryl), OR9, N(R9)2; n = 1-4 (valence of M minus 2); R9 = C1-20-alkyl, C3-8-cycloalkyl, C6-15-aryl, alkylaryl] with cyclopentadienyl derivs. of alkali or alkaline-earth metals, and warming the reaction mixture thus obtained at a temperature within the range of -78 to 250°. In an example, dimethylsilylbis(2-methylindenyl)zirconium(3,3'-di-tert-butyl-5,5'-dimethoxy-1,1'-bis-2-phenolate) was prepared in 63.5% yield as the pure racemic diastereomer.

L5 ANSWER 7 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:367255 CAPLUS
DN 140:391374
TI Process for racemoselective preparation of racemic, silyl-bridged
diorganosilylbis(2-methylbenz[e]indenyl)zirconium complexes
IN Damrau, Hans-Robert-Hellmuth; Garcia, Valerie; Sidot, Christian; Mueller,
Patrik; Tellier, Christian; Lelong, Jean-Francois
PA Basell Polyolefine GmbH, Germany

SO Ger. Offen., 16 pp.

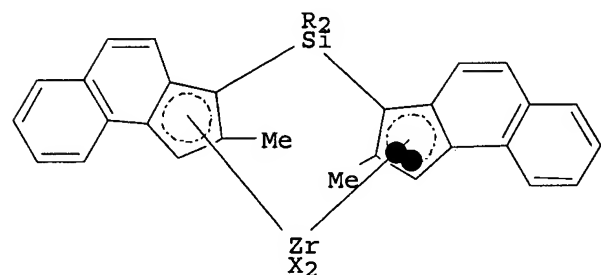
CODEN: GWXXBX

DT Patent

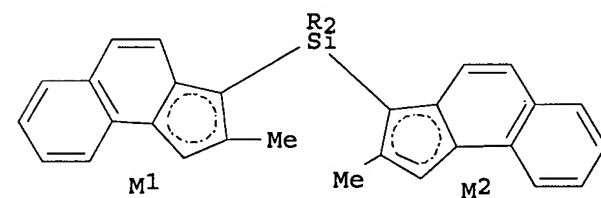
LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10250060	A1	20040506	DE 2002-10250060	20021025
	WO 2004037840	A1	20040506	WO 2003-EP11681	20031022
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	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
	EP 1554297	A1	20050720	EP 2003-775212	20031022
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PRAI	DE 2002-10250060	A	20021025		
	US 2002-431805P	P	20021209		
	WO 2003-EP11681	W	20031022		
OS	CASREACT 140:391374; MARPAT 140:391374				
GI					



I .



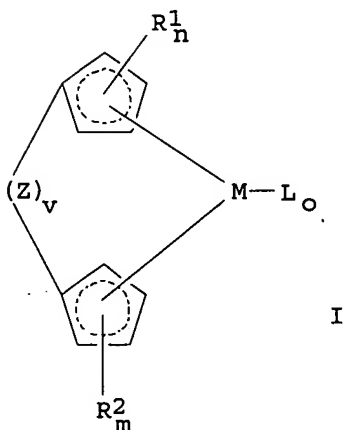
II

AB Racemic zirconocene complexes I [R = (un)branched or cyclic C1-10 alkyl, C6-10 aryl; X = F, Cl, Br, iodo or (un)branched or cyclic C1-10 alkyl], useful as polymerization catalysts or catalysts for stereoselective syntheses (no data), are prepared by reaction of silyl-bridged bis(indenyl) ligands II (same R; M1, M2 = monovalent alkali metal cation; M1M2 = divalent alkaline earth metal cation) with [3,5-(Me3C)2C6H3O]2Zr(LB)Cl2 (III; LB = Lewis base) to afford I [same R; X = OC6H3(CMe3)2-3,5] (IV) and subsequent substitution of the phenolato groups with X by a suitable cleavage reagent. 2-Methylbenz[e]indene is deprotonated by alkali metal or alkaline earth metal alkyls and then reacted with R2SiY2 (same R; Y = F, Cl, Br, iodo) and again deprotonated to afford the silyl-bridged ligand II. Preferably, no intermediates are isolated during the claimed processes. The racemic zirconocene complexes IV and their use as catalysts or as constituents of catalysts for the polymerization of olefinically unsatd. compds. or as reagents or catalysts in stereoselective synthesis are also claimed.

In an example, treating a suspension of 27.46 mmol ZrCl₄ in 100 mL PhMe and 4.5 g THF with a solution of 54.91 mmol 3,5-(Me₃C)₂C₆H₃OLi (preparation given) in 120 mL PhMe and 4.5 g THF at 4° and then stirring 1.5 h at room temperature, followed by reaction with dilithiated dimethylsilylbis(2-methylbenz[e]indenyl) (preparation given) in 120 mL PhMe and 6.0 g THF and subsequent stirring for 4 h at 80° gave 61% racemic silyl-bridged bis(indenyl) zirconocene phenolate derivative IV (R = Me).

L5 ANSWER 8 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:927441 CAPLUS
 DN 138:14123
 TI Purification of ansa-zirconocene complexes by the removal of organometallic and inorganic byproducts
 IN Schottek, Joerg; Schulte, Joerg
 PA Basell Polyolefine GmbH, Germany
 SO PCT Int. Appl., 25 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002096920	A1	20021205	WO 2002-EP5513	20020518
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10126265	A1	20021205	DE 2001-10126265	20010529
	EP 1392710	A1	20040303	EP 2002-754573	20020518
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004527581	T2	20040909	JP 2003-500099	20020518
	US 2004176624	A1	20040909	US 2003-478666	20031124
PRAI	DE 2001-10126265	A	20010529		
	WO 2002-EP5513	W	20020518		
OS	MARPAT 138:14123				
GI					



AB Ansa-metallocene complexes [I; wherein M = (preferably) Zr, metal of group 3, 4, 5, or 6 of the Periodic Table of Elements; L, independently = H, (C₁-C₁₀)alkyl, halo, alkoxy, sulfoxy, silyloxy, etc.; Z = dialkylsilane,

alkyl, other bridging structural element; R1, R2, independently = trialkylsilyl, or two or more radicals of R1 or R2 may be joined to one another so that radicals R1 or R2 and the atoms of the cyclopentadienyl ring which connect them form a (C4-C24) ring system; m, n = 4; o = 1, 2, 3, 4; v = 1] were purified by a process for separating inorg. and organometallic byproducts from mixts. containing compds. I as products. The process comprises the steps (A) admixing the mixture comprising the product, the organometallic byproduct and the inorg. byproduct with a mixture comprising at least one polar organic extractant and water and separating off the undissolved residue, (B) washing the residue from step (A) with a nonpolar organic extractant or a mixture comprising at least one nonpolar organic extractant and at least one aprotic polar organic solvent and (C) drying the residue which was washed in step (B) and comprises the organometallic transition metal compound

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:384990 CAPLUS
DN 136:386587
TI Method for producing a prepolymerized catalyst
IN Brinen, Jeffrey L.
PA Exxonmobil Chemical Patents Inc., USA
SO U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 174,498, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6391817	B1	20020521	US 1995-401514	19950310
	CA 2213751	AA	19960919	CA 1996-2213751	19960220
	WO 9628479	A1	19960919	WO 1996-US2300	19960220
	W: BR, CA, CN, JP, KR, RU				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 813554	A1	19971229	EP 1996-904652	19960220
	EP 813554	B1	20040407		
	R: BE, DE, ES, FR, GB, IT, NL				
	BR 9607227	A	19980707	BR 1996-7227	19960220
	ES 2214530	T3	20040916	ES 1996-904652	19960220
PRAI	US 1993-174498	B2	19931228		
	US 1995-401514	A	19950310		
	WO 1996-US2300	W	19960220		

OS MARPAT 136:386587
AB A method for controlling fouling in a prepolymer reactor is disclosed and comprises combining a supported metallocene catalyst system, an alpha olefin monomer feed, and added H under suitable prepolymer reaction conditions. This method is also useful for the control of agglomeration during a prepolymer reaction.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:10491 CAPLUS
DN 136:69969
TI Method for the selective production of racemic metallocene complexes
IN Damrau, Robert; Mueller, Patrik; Royo, Eva; Brintzinger, Hans-Herbert
PA Basell Polyolefine G.m.b.H., Germany
SO PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002000672	A1	20020103	WO 2001-EP7389	20010628
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
 RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
 UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

DE 10030638 A1 20020110 DE 2000-10030638 20000629
 EP 1294734 A1 20030326 EP 2001-965046 20010628
 EP 1294734 B1 20040519

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2004501928 T2 20040122 JP 2002-505794 20010628
 BR 2001012050 A 20040210 BR 2001-12050 20010628
 AT 267205 E 20040615 AT 2001-965046 20010628
 ES 2219557 T3 20041201 ES 2001-1965046 20010628
 US 2004010157 A1 20040115 US 2003-312359 20030605

PRAI DE 2000-10030638 A 20000629
 WO 2001-EP7389 W 20010628

OS CASREACT 136:69969; MARPAT 136:69969

AB The invention relates to a method for producing racemic metallocene complexes by reacting bridged or non-bridged transition metal complexes with cyclopentadienyl derivs. of alkaline or alkaline earth metals and optionally, subsequently substituting the phenolate ligands. Thus, reaction of Me₂Si(2-Me-ind)₂Li₂ with Cl₂(THF)2Zr(bip) (bip = 3,3'-5,5'-tetra-tert-Bu-1,1'-bi-2-phenolate) in PhMe/THF gave 22% rac-Me₂Si(2-Me-ind)2Zr(bip).

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:809561 CAPLUS

DN 136:85899

TI Racemo-Selective Synthesis of ansa-Zirconocene Derivatives from Zirconium Biphenolate Complexes

AU Damrau, Hans-Robert H.; Royo, Eva; Obert, Stephan; Schaper, Frank; Weeber, Armin; Brintzinger, Hans-Herbert

CS Fakultät fuer Chemie, Universitaet Konstanz, Konstanz, D-78457, Germany

SO Organometallics (2001), 20(25), 5258-5265

CODEN: ORGND7; ISSN: 0276-7333

PB American Chemical Society

DT Journal

LA English

OS CASREACT 136:85899

AB Stereoselective reactions of zirconium biphenolate complexes of the general formula (BIP)ZrCl₂(THF)₂ (1a-c), where BIP = 3,3'-iPr₂-6,6'-Me₂-1,1'-bi-2-phenolate (a), 3,3'-tBu₂-5,5'-Me₂-1,1'-bi-2-phenolate (b), or 3,3',5,5'-tBu₄-1,1'-bi-2-phenolate (c), with 1 equiv of the lithium or magnesium salts of various ansa-bis(indenyl) ligands give the ansa-zirconocenes rac-C₂H₄(Ind)₂Zr(BIP) (2b), rac-Me₂Si(Ind)₂Zr(BIP) (3c), rac-Me₂Si(2-Me-Ind)₂Zr(BIP) (4c), rac-Me₂Si(2-Me-4-Ph-Ind)₂Zr(BIP) (5c), and rac-Me₂Si(2-Me-Benz[e]Ind)₂Zr(BIP) (6c) in isolated yields of 60-75%. Reactions of C₂H₄(Ind)₂Mg(THF)₂ with 1a and 1b and of Me₂Si(Ind)₂Li₂ with 1c give directly the pure diastereomers rac-2a, rac-2b, and rac-3c, resp. More highly substituted indenyl ligands, on the other hand, give initially kinetically controlled mixts. of the rac- and meso-zirconocene BIP derivs. 4c, 5c, and 6c, from which the pure rac-derivs. are obtained as thermodynamically favored products by heating the reaction mixts. to 75° for 5-7 h. The meso-to-rac isomerization of 6c is catalyzed by addition of TEMPO and is thus likely to occur by way of radical intermediates. Crystal and mol. structures of 1b and 2b and of 1c and 6c indicate that formation of the racemo diastereomers is favored by repulsive interactions between biphenolate and ansa-bis(indenyl) ligands. In polymerization studies, complex 4c, in the presence of MAO, polymerized propene to give polypropylene with an isotacticity of 84%.

RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:326422 CAPLUS

DN 134:341567

TI Propylene polymer fibers, their nonwoven fabrics, and manufacture of fibers
 IN Ota, Shinji
 PA Ube Nitto Kasei Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001123322	A2	20010508	JP 1999-294085	19991015
PRAI	JP 1999-294085		19991015		

AB The fibers, having tenacity (cN/dtex)/stretching ratio ≥ 1.4 , mainly comprise propylene polymers manufactured by using metallocene catalysts. Thus, propylene was polymerized in the presence of rac-dimethylsilylene-bis(2-ethyl-4,5-benzindenyl)zirconium dichloride, Me aluminoxane supported on silica, and Al(iso-Bu)₃ to give polypropylene showing isotacticity 93.0%. The polypropylene was spun and stretched by heating in pressurized saturated water vapor at stretching ratio 6.0.

L5 ANSWER 13 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:208171 CAPLUS
 DN 134:237974

TI Transition metal catalysts and processes for producing α -olefin and vinyl compound polymer
 IN Sato, Haruhito; Kuramoto, Masahiko; Watanabe, Masami
 PA Idemitsu Petrochemical Co., Ltd., Japan
 SO PCT Int. Appl., 64 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

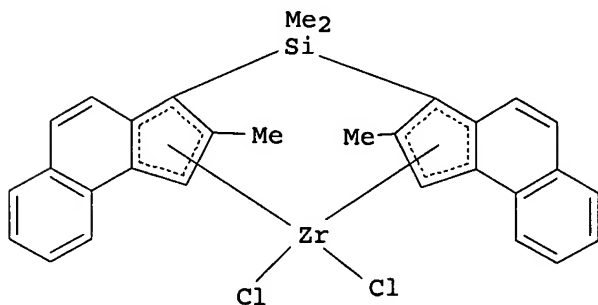
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001019513	A1	20010322	WO 2000-JP6317	20000914
	W: AU, BR, CA, CN, ID, IN, JP, KR, SG, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2345621	AA	20010322	CA 2000-2345621	20000914
	BR 2000007150	A	20010814	BR 2000-7150	20000914
	EP 1136122	A1	20010926	EP 2000-961027	20000914
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI	JP 1999-262565	A	19990916		
	JP 1999-322928	A	19991112		
	JP 2000-180875	A	20000616		
	WO 2000-JP6317	W	20000914		

AB A catalyst for α -olefin production comprises (a) a complex of a transition metal of Groups 8-10, (b) a clay, clay mineral, or ion-exchanging lamellar compound, and (c) an amine compound or an adduct thereof with a Bronsted acid. A catalyst for olefin polymerization comprises (a) a chelate complex of a transition metal of Groups 4-6 or a complex of a transition metal of Groups 8-10, (b) a clay, clay mineral, or ion-exchanging lamellar compound, and (c) a quaternary ammonium salt. A catalyst for vinyl compound polymerization comprises a promoter component obtained through contacting from (a) a clay, clay mineral, or ion-exchanging lamellar compound, (b) an amine compound, an adduct thereof with a Bronsted acid, or a quaternary ammonium salt, and (c) an organic silane compound; and (d) a complex of a transition metal of Groups 4-6 or Groups 8-10. Preparing a composite of Na montmorillonite and N,N-dibenzylaniline, stirring with (iso-Bu)₃Al-PhMe soln, and adding the resulting slurry (2.5 mL) to a 20 mL PhMe slurry containing 0.088 g [2,6-[(2,4-C₆H₃Me₂)N:C(Me)]₂C₅H₃N]FeCl₂ gave a catalyst, which together with tetra(isobutyl) dialuminoxane in cyclohexane was used to polymerize ethylene at 75° and 0.8 MPa, resulting in catalyst activity 3510 g/g-Fe.

RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:73568 CAPLUS
 DN 134:131668
 TI Silyl amines
 IN Gately, Daniel A.
 PA Boulder Scientific Company, USA
 SO U.S., 4 pp., Cont.-in-part of U.S. Ser. No. 16,641.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6180810	B1	20010130	US 1999-444503	19991122
	CA 2359064	AA	20010531	CA 2000-2359064	20001116
	WO 2001038334	A1	20010531	WO 2000-US31999	20001116
	W: AU, CA, JP, NZ, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1150986	A1	20011107	EP 2000-980636	20001116
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	NZ 512946	A	20021126	NZ 2000-512946	20001116
	JP 2003523953	T2	20030812	JP 2001-540097	20001116
	US 2001056199	A1	20011227	US 2001-816496	20010326
	US 6410767	B2	20020625		
PRAI	US 1998-16641	A2	19980130		
	US 1999-444503	A	19991122		
	WO 2000-US31999	W	20001116		
OS	MARPAT 134:131668				
GI					



I

AB Silyl amine compds. which have a proton available for covalent bonding to a metallocene metal center are disclosed. Thus, reaction of t-BuNH₂ with Me₂SiCl₂ in THF gave 97% (t-BuNH)₂SiMe₂ which on treatment with (MsO)₂SiMe₂·0.5HCl gave 98% (t-BuNH)(MsO)SiMe₂. Lithiation of 2-methyl-4,5-benzo(indene) with BuLi in Et₂O followed by silylation with (MsO)SiMe₂·0.5HCl gave bis(2-methyl-4,5-benzoindenyl)dimethylsilane. Lithiation of bis(2-methyl-4,5-benzoindenyl)dimethylsilane with BuLi in Et₂O/PhMe followed by treatment with ZrCl₄ gave metallocene compound I.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 15 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:67040 CAPLUS
 DN 134:280933
 TI Anion Exchange in Alkyl-Zirconocene Borate Ion Pairs. Are Solvated Alkyl-Zirconocene Cations Relevant Intermediates?
 AU Beck, Stefan; Lieber, Susanna; Schaper, Frank; Geyer, Armin; Brintzinger, Hans-Herbert

CS Fachbereich Chemie, Universitaet Konstanz, Konstanz, D-78457, Germany
SO Journal of the American Chemical Society (2001), 123(7), 1483-1489
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 134:280933
AB Ion pairs of the type $\text{Cpx2ZrMe}^+\cdots\text{A}^-$ containing various ansa-zirconocene Me cations in contact with Me-B(C6F5)3^- or B(C6F5)4^- anions were studied with regard to their anion exchange kinetics by 2D-NMR methods in benzene or toluene solns. The acceleration of anion exchange by added $\text{Li}^+\cdots\text{Me-B(C6F5)3}^-$, substantial nonproductive exchange between added and Zr-bound Me-B(C6F5)3^- anions, an increase of exchange rates at increased zirconocene concns., and the exclusively entropic origin of this rate increase-all indicate that anion exchange occurs by way of ion quadruples or higher ionic aggregates, rather than via dissociation to solvent-separated ions. These findings imply that solvent-separated (i.e. anion-free) alkyl zirconocene cations are unlikely to be relevant intermediates in reaction systems containing $\text{Cpx2ZrMe}^+\cdots\text{A}^-$ ion pairs and, hence, also in zirconocene-based catalyst systems for the polymerization of α -olefins.

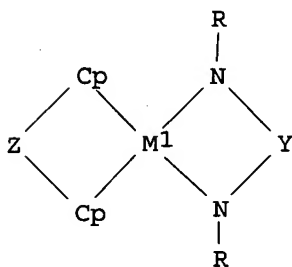
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 16 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:830422 CAPLUS
DN 134:17596
TI Synthesis of ansa-metallocene catalysts
IN Jordan, Richard F.; Zhang, Xingwang
PA University of Iowa Research Foundation, USA
SO U.S., 13 pp.
CODEN: USXXAM

DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 6153777	A	20001128	US 1999-431825	19991102
PRAI	US 1999-431825		19991102		
OS	CASREACT 134:17596; MARPAT 134:17596				
GI					



I

AB A process of preparing in high yield racemic ansa-metallocene complexes, I (Cp = cyclopentadienyl, indenyl, fluorenyl, or related group π -bonded to metal, or hydrocarbyl, hydrocarbylmetalloid, halohydrocarbylmetalloid, etc.; Z = bridging group which links to Cp groups; M1 = Group 4 metal; R = H, Cl-40 hydrocarbyl, silyl, etc.; Y = bridging group which links two NR groups), by reacting a chelated bisamide Group 4 metal complex with an ansa-bis-cyclopentadienyl dianion reagent is described. I are useful as catalyst for olefin polymerization The meso isomers are not detectable in the reaction product.

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

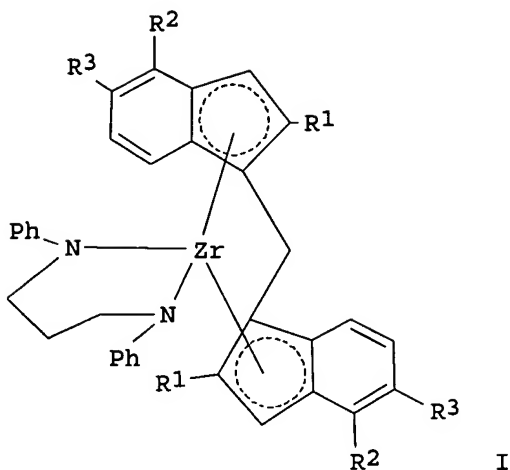
L5 ANSWER 17 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:553607 CAPLUS
DN 133:164483
TI Metallocene catalyst compositions for manufacture of olefin homopolymers
and copolymers
IN Minami, Yutaka; Kanamaru, Masami
PA Idemitsu Petrochemical Co., Ltd., Japan
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000046254	A1	20000810	WO 2000-JP587	20000203
	W: JP, SG, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1085025	A1	20010321	EP 2000-902070	20000203
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	US 6562918	B1	20030513	US 2000-646871	20001004
PRAI	JP 1999-26805	A	19990204		
	WO 2000-JP587	W	20000203		

OS MARPAT 133:164483
AB The compns. with high catalytic activity for gas as well as slurry olefin polymerization comprise: (A) a Group IV-VI transition metal compound, (B) an organoaluminum oxy compound, and (C) a support when necessary with average particle diameter of 1-300 μ m, sp. surface area of 1-1000 m²/g and micropore area 0.1-5 cm³/g and are obtained by contacting these components while irradiating with an elastic wave, preferably an ultrasonic wave having a frequency of 1-1,000 kHz at least in one of the contacting steps. Thus, mixing 7.41 mL a 0.27 mol/L suspension of SiO₂-supported Me aluminoxane in n-heptane, 20 mL n-heptane, and 1.0 mmol rac-dimethylsilylenebis(2-methyl-4,5-benzoindenyl)zirconium dichloride in MePh and stirring the mixture under an ultrasonic wave of 20 kHz for 20 min at 30° gave a catalyst composition, which was then combined with 400 mL n-heptane, 1 mL 1.0 M iso-Bu₃Al and C₃H₆ and polymerized at 50° to give 81.0 g polypropylene with the activity of 888 kg/g-Zr.

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:532382 CAPLUS
DN 133:281861
TI General Synthesis of Racemic Me₂Si-Bridged Bis(indenyl) Zirconocene Complexes
AU Zhang, Xingwang; Zhu, Qingming; Guzei, Ilia A.; Jordan, Richard F.
CS Department of Chemistry, The University of Iowa, Iowa City, IA, 52242, USA
SO Journal of the American Chemical Society (2000), 122(33), 8093-8094
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 133:281861
GI



AB Racemic MeSi-bridged bis(indenyl) zirconocene complexes I (e.g., R1 = R2 = R3 = H) were prepared from Zr(PhNCH2CH2CH2NPh)Cl2(THF)2 (II) and Li2[SBI](Et2O) [SBI = (1-indenyl)2SiMe2] in Et2O at room temperature I (R1 = R2 = R3 = H) reacted further with ClSiMe3 and CD2Cl2 at 60° to stereoselectively give rac-(SBI)ZrCl2 only with no detectable amount of meso-(SBI)ZrCl2. I (R1 = Me, R2R3 = CH:CHCH:CH) and II were characterized by x-ray crystallog.

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:467876 CAPLUS

DN 133:89641

TI Silylated and N-silylated compound synthesis

IN Gately, Daniel Anthony

PA Boulder Scientific Company, USA

SO U.S., 7 pp., Cont.-in-part of U.S. Ser. No. 16,641.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6087518	A	20000711	US 1999-244779	19990205
	CA 2324358	AA	20000817	CA 2000-2324358	20000203
	WO 2000047587	A1	20000817	WO 2000-US2795	20000203
	W: AU, CA, JP, NZ, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1070072	A1	20010124	EP 2000-914493	20000203
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	NZ 507044	A	20020828	NZ 2000-507044	20000203
	JP 2002536451	T2	20021029	JP 2000-598507	20000203
	AU 765658	B2	20030925	AU 2000-35877	20000203
	US 2001056199	A1	20011227	US 2001-816496	20010326
	US 6410767	B2	20020625		
PRAI	US 1998-16641	A2	19980130		
	US 1999-244779	A	19990205		
	WO 2000-US2795	W	20000203		

OS MARPAT 133:89641

AB Novel silanes having the formula (RSO3)2SiQ2.0.5HX are described. Synthesis of silylated bis-cyclopentadienyl and N-silylated mono(cyclopentadienyl) ligands and similar indenyl ligands utilizing the novel silanes is described. Thus, reaction of (MsO)2SiMe2 (preparation given) with Me2Si(NHBu-t)2 (preparation given) gave (MsO)SiMe2(NHBu-t) (Ms = mesyl) which on treatment with lithiated 2-methylcyclopentadiene gave 100% 2-methylcyclopentadienyl(t-butylamido)dimethylsilane.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:401881 CAPLUS

DN 133:43971

TI Process and metallocene catalysts for polymerization of olefins

IN Andell, Ove; Kallio, Kalle; Knuuttila, Hilka

PA Borealis A/S, Den.; Peroxid-Chemie G.m.b.H.; Cockbain, Julian

SO PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000034341	A2	20000615	WO 1999-GB4124	19991207
	WO 2000034341	A3	20000831		
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	CA 2349821	AA	20000615	CA 1999-2349821	19991207
	BR 9915991	A	20010904	BR 1999-15991	19991207
	EP 1137677	A2	20011004	EP 1999-961187	19991207
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, IE, SI, LT, LV, FI, RO			
	TW 476764	B	20020221	TW 1999-88121381	19991207
	AU 748860	B2	20020613	AU 2000-17880	19991207
	JP 2002531646	T2	20020924	JP 2000-586782	19991207
	NO 2001002785	A	20010801	NO 2001-2785	20010606
	US 6730756	B1	20040504	US 2001-857370	20011009
PRAI	GB 1998-26874	A	19981207		
	WO 1999-GB4124	W	19991207		

OS MARPAT 133:43971

AB Described herein is a heterogeneous olefin polymerization catalyst comprising a porous particulate support material having impregnated therein a metallocene catalyst the metal atom whereof is bound to an amide group which is not bound to an η -ligand of the metallocene, or the reaction product of a the metallocene catalyst and a co-catalyst. Ethylene was polymerized using bis(n-butylcyclopentadienyl) (dimethylamido) zirconium chloride/silica and MAO.

L5 ANSWER 21 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:368375 CAPLUS

DN 133:17638

TI Method for producing monoaryloxy-ansa-metallocenes

IN Bingel, Carsten; Brintzinger, Hans-herbert; Damrau, Hans-robert-hellmuth

PA Targor G.m.b.H., Germany

SO PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000031091	A1	20000602	WO 1999-EP8854	19991118
	W:	BR, JP, US			
	RW:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE			
	DE 19912576	A1	20000921	DE 1999-19912576	19990319
	BR 9915708	A	20010814	BR 1999-15708	19991118
	EP 1133504	A1	20010919	EP 1999-960984	19991118
	EP 1133504	B1	20030312		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,			

IE, FI

JP 2002530416	T2	20020917	JP 2000-583919	19991118
ES 2192408	T3	20031001	ES 1999-960984	19991118
EP 1361226	A2	20031112	EP 2003-15009	19991118
EP 1361226	A3	20040102		

R: CH, DE, ES, FR, GB, IT, LI, NL

EP 1396495	A1	20040310	EP 2003-26592	19991118
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY

US 6620953	B1	20030916	US 2001-856041	20010517
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PRAI DE 1998-19854350 A 19981125
 DE 1999-19912576 A 19990319
 DE 1999-19900585 A 19990111
 EP 1999-956012 A3 19991118
 EP 1999-958064 A3 19991118
 WO 1999-EP8854 W 19991118

OS MARPAT 133:17638

AB Diindenylsilane zirconocene chloride phenolates were prepared as polymerization catalysts. Thus, treatment of lithiated dimethylbis(2-methyl-4,5-benzoindenyl)silane with 2,4-(Me3C)2C6H3OZrCl(THF)2 gave 44% pseudo-rac-dimethylsilanediylbis(2-methyl-4,5-benzoindenyl)zirconium monochloride mono(2,4-di-tert-butylphenolate) which was used as a catalyst in the polymerization of propene. Among the 6 other title compds. similarly prepared were 53% pseudo-rac-dimethylsilanediylbis(2-methylindenyl)zirconium monochloride mono(2,6-dimethylphenolate), and 47% pseudo-rac-dimethylsilanediylbis[2-methyl-4-(4-tert-butylphenyl)indenyl]zirconium monochloride mono(2,4-di-tert-butylphenolate).

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 22 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:368373 CAPLUS

DN 133:17637

TI Metallocene monohalides

IN Bingel, Carsten; Brintzinger, Hans-herbert; Damrau, Hans-robert-hellmuth; Muller, Patrik; Suhm, Jurgen

PA Targor G.m.b.H., Germany

SO PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2000031090	A1	20000602	WO 1999-EP8851	19991118
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W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

BR 9906934	A	20001010	BR 1999-6934	19991118
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EP 1049705	A1	20001108	EP 1999-956012	19991118
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

JP 2002530415	T2	20020917	JP 2000-583918	19991118
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EP 1361226	A2	20031112	EP 2003-15009	19991118
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EP 1361226	A3	20040102		
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R: CH, DE, ES, FR, GB, IT, LI, NL

EP 1396495	A1	20040310	EP 2003-26592	19991118
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY

ZA 2000003597	A	20010731	ZA 2000-3597	20000718
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PRAI DE 1998-19854350 A 19981125

DE 1999-19900585 A 19990111

EP 1999-956012 A3 19991118

EP 1999-958064 A3 19991118
WO 1999-EP8851 W 19991118

OS MARPAT 133:17637

AB The invention relates to new metallocene monohalides, a method for producing same and their use in the polymerization of olefins. E.g., treatment of dimethylsilanediylbis(2-methyl-4,5-benzoindenyl)zirconium dichloride with 2,4-di-tert-butylphenol gave 83% dimethylsilanediylbis(2-methyl-4,5-benzoindenyl)zirconium chloride 2,4-di-tert-butylphenolate, which was purified in toluene and used as a catalyst in the polymerization of propene. Among the 5 other metallocenes similarly prepared were 53% dimethylsilanediylbis(2-methylindenyl)zirconium chloride 2,4-di-tert-butylphenolate and 63% dimethylsilanediylbis(2-methyl-4,5-benzoindenyl)zirconium chloride 2,4-di-tert-pentylphenolate.

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 23 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:368372 CAPLUS

DN 133:17636

TI Method for the purification of metallocenes

IN Bingel, Carsten; Muller, Patrik; Brintzinger, Hans-herbert; Damrau, Hans-robert-hellmuth

PA Targor G.m.b.H., Germany

SO PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000031089	A1	20000602	WO 1999-EP8849	19991118
	W: JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19900585	A1	20000713	DE 1999-19900585	19990111
	EP 1133503	A1	20010919	EP 1999-958064	19991118
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002530414	T2	20020917	JP 2000-583917	19991118
	EP 1361226	A2	20031112	EP 2003-15009	19991118
	EP 1361226	A3	20040102		
	R: CH, DE, ES, FR, GB, IT, LI, NL				
	EP 1396495	A1	20040310	EP 2003-26592	19991118
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	US 6900343	B1	20050531	US 2001-856695	19991118
PRAI	DE 1998-19854350	A	19981125		
	DE 1999-19900585	A	19990111		
	EP 1999-956012	A3	19991118		
	EP 1999-958064	A3	19991118		
	WO 1999-EP8849	W	19991118		

OS MARPAT 133:17636

AB The invention relates to a method for purifying metallocenes according to which a poorly soluble metallocene halide is transformed into a readily soluble and easily crystallizable metallocene by replacement of at least one halide ligand with another, neg. charged, ligand, after which the metallocene obtained in this way is purified by crystallization E.g., treatment of dimethylsilanediylbis(2-methyl-4,5-benzoindenyl)zirconium dichloride with 2,4-di-tert-butylphenol gave 83% dimethylsilanediylbis(2-methyl-4,5-benzoindenyl)zirconium chloride 2,4-di-tert-butylphenolate, which was purified in toluene and used as a catalyst in the polymerization of propene. Among the 5 other metallocenes similarly prepared were 53% dimethylsilanediylbis(2-methylindenyl)zirconium chloride 2,4-di-tert-butylphenolate and 63% dimethylsilanediylbis(2-methyl-4,5-benzoindenyl)zirconium chloride 2,4-di-tert-pentylphenolate.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 24 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:819427 CAPLUS
 DN 132:64952
 TI Preparation of propylene polymer and composition with transparency, flexibility, and melt flowability
 IN Minami, Yutaka; Kijima, Masato; Okamoto, Takuji; Seta, Yasushi; Mogi, Yasuhiro; Ota, Tsuyoshi; Funabashi, Hideo; Kashiwamura, Takashi; Tani, Noriyuki; Kanamaru, Masami; Kakigami, Koji
 PA Idemitsu Petrochemical Co., Ltd., Japan; et al.
 SO PCT Int. Appl., 345 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9967303	A1	19991229	WO 1999-JP3405	19990625
	W: US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 11166084	A2	19990622	JP 1998-239872	19980826
	JP 11302474	A2	19991102	JP 1998-302892	19981023
	JP 2000095820	A2	20000404	JP 1999-55025	19990303
	JP 2000281723	A2	20001010	JP 1999-86491	19990329
	EP 1095951	A1	20010502	EP 1999-926823	19990625
	R: DE				
	JP 2000344833	A2	20001212	JP 1999-284607	19991005
	JP 2000355612	A2	20001226	JP 1999-284606	19991005
	US 6906155	B1	20050614	US 2001-719552	20010228
	US 2005043495	A1	20050224	US 2004-855964	20040528
PRAI	JP 1998-179252	A	19980625		
	JP 1998-210115	A	19980724		
	JP 1998-239872	A	19980826		
	JP 1998-302892	A	19981023		
	JP 1999-283	A	19990105		
	JP 1999-55025	A	19990303		
	JP 1999-79694	A	19990324		
	JP 1999-86491	A	19990329		
	JP 1999-93420	A	19990331		
	JP 1999-103996	A	19990412		
	JP 1997-230611	A	19970827		
	JP 1998-39960	A	19980223		
	WO 1999-JP3405	W	19990625		
	US 2001-719552	A3	20010228		

OS MARPAT 132:64952
 AB Title composition, useful as substitute for flexible vinyl chloride resin, comprises (A) a propylene homopolymer or a copolymer of propylene with ethylene and/or C4-40 α -olefin, which has isotactic pentad fraction (mmmm fraction) 30-80 mol% or stereoregular index (P) 55-90 mol%, mol. weight distribution (Mw/Mn) <3.5, and intrinsic viscosity $[\eta]$ 0.8-5 dL/g, and is polymerized in the presence of a metallocene catalyst, and optionally (B) a nucleating agent >10 ppm. Thus, polypropylene with mmmm fraction = 63.5 mol%, $[\eta]$ = 1.2 dL/g, and Mw/Mn = 1.8 was prepared in the presence of triisobutylaluminum, methylaluminoxane, and (1,2'-ethylene)(2,1'-ethylene)-bis(3-methylindenyl)zirconium dichloride, to give a press-molded test piece with good transparency, internal Haze 14, and tensile modulus 250 MPa.

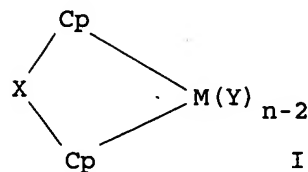
RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 25 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:779261 CAPLUS
 DN 132:23089
 TI Preparation of ansa-metallocenes by reaction of aluminum ansa-bis(cyclopentadienyl) compds. with metal amides
 IN Jordan, Richard F.; Thiagarajan, Bakthavachalam; Zhang, Xingwang
 PA University of Iowa Research Foundation, USA
 SO U.S., 8 pp.
 CODEN: USXXAM
 DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5998643	A	19991207	US 1999-232513	19990115
PRAI	US 1999-232513		19990115		
OS	CASREACT 132:23089; MARPAT 132:23089				
GI					



AB Ansa-metallocene complexes I [Cp = (un)substituted cyclopentadienyl, indenyl, fluorenyl or related group that can p-bond to the metal; X = bridging group, preferably ethylene, (un)substituted methylene or SiMe₂; M = Group IIIB, IVB or VB metal, preferably Ti, Zr or Hf; Y = leaving group, where each Y is same or different or linked; n = 3-5], useful as olefin polymerization catalysts (no data) are prepared in high yield by reacting a metal leaving group complex MYnL'^m (same M, Y, n; L' = Lewis base; m = 0-2; 2 or more Y and L' groups may be linked), preferably a Group IVB metal amide, with an Al ansa-bis-cyclopentadienyl compound R₁R₂LxAl-Cp-X-Cp-AlR₁R₂Lx (same Cp, X; R₁, R₂ = H, C1-20 hydrocarbyl, alkoxide, aryloxy, amide, halo; L = Lewis base; x = 0-3).

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 26 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:715553 CAPLUS

DN 132:93412

TI Aluminum ansa-Indenyl Compounds. Synthesis, Structures, Dynamic Properties, and Application in the Synthesis of Group 4 ansa-Metallocenes

AU Thiyagarajan, B.; Jordan, Richard F.; Young, Victor G., Jr.

CS Department of Chemistry, The University of Iowa, Iowa City, IA, 52242, USA

SO Organometallics (1999), 18(25), 5347-5359

CODEN: ORGND7; ISSN: 0276-7333

PB American Chemical Society

DT Journal

LA English

OS CASREACT 132:93412

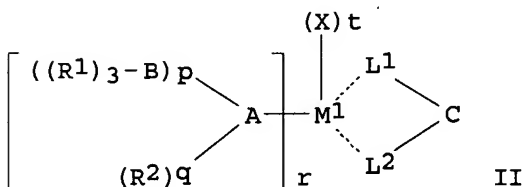
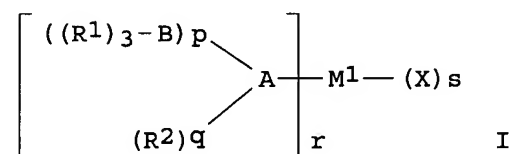
AB The synthesis, structures, dynamic properties, and indenyl transfer reactions of Al ansa-bis(indenyl) compds. are described. The reaction of 2 equivalent of AlMe₂Cl with 1 equiv of Li₂[(1-indenyl)₂SiMe₂], Li₂[(2-Me-1-indenyl)₂SiMe₂], Li₂[(2-Me-4,5-benz-1-indenyl)₂SiMe₂]·Et₂O, Li₂[(2-Me-4-Ph-1-indenyl)₂SiMe₂]·Et₂O, or Li₂[1,2-(3-indenyl)₂-C₂H₄] in Et₂O followed by treatment with the appropriate Lewis base (L) affords {AlMe₂(THF)(indenyl)₂SiMe₂} (1), [{1-AlMe₂(1,4-dioxane)0.5-2-Me-1-indenyl}₂SiMe₂]_n (2a), {1-AlMe₂(Et₂O)-2-Me-4,5-benz-1-indenyl}₂SiMe₂ (3), {1-AlMe₂(Et₂O)-2-Me-4-Ph-1-indenyl}₂SiMe₂ (4a), {1-AlMe₂(THF)-2-Me-4-Ph-1-indenyl}₂SiMe₂ (4b), or 1,2-{3-AlMe₂(THF)-1-indenyl}₂-C₂H₄ (5), resp., as colorless to pale yellow solids in 41-70% isolated yields. Compds. 2a and 4b are isolated as the rac isomers, whereas 1 and 3 are isolated as rac/meso mixts. from which the rac isomer can be separated by recrystn. Compound 5 was isolated as a single diastereomer of 1,2-{3-AlMe₂(THF)-1-indenyl}₂-C₂H₄. The mol. structures of rac-2a and rac-3 were determined by x-ray crystallog. Low-temperature NMR studies establish that, in toluene-d₈, rac-1 exists as a 2/1 mixture of two isomers, ({1-AlMe₂(THF)-1-indenyl}{1-AlMe₂(THF)-3-indenyl})SiMe₂ (rac-1a) and {1-AlMe₂(THF)-1-indenyl}₂SiMe₂ (rac-1b), which interconvert rapidly on the NMR time scale at room temperature. In contrast, similar studies establish that rac-2b (in THF-d₈) and rac-3 and rac-4b (in toluene-d₈) exist as the rac-{1-AlMe₂L-1-indenyl}₂SiMe₂ isomers; in these cases no other isomers are detected. Rac-1, rac-3, and rac-4b isomerize to

rac/meso mixts. slowly (days) at ambient temperature and more rapidly (minutes) at 70°. Compds. 1 and 5 undergo slow partial disproportionation by ligand redistribution (e.g. 1: 28% conversion, 2 days, 23°, benzene); the more highly substituted indenyl compds. 3 and 4b are more resistant to this process. Compds. 1, 2, 3, 4a, and 5 react with Zr(NMe₂)₄ and Hf(NMe₂)₄ in benzene or toluene under mild conditions to yield the corresponding ansa-metallocenes {(1-indenyl)₂SiMe₂}M(NMe₂)₂ (6, M = Zr, rac/meso = 4/1; 7, M = Hf, rac/meso = 10/1), {(2-Me-1-indenyl)₂SiMe₂}Zr(NMe₂)₂ (8, rac/meso = 3/4), {(2-Me-4,5-benz-1-indenyl)₂SiMe₂}Zr(NMe₂)₂ (9, rac/meso = 9/10), {(2-Me-4-Ph-1-indenyl)₂SiMe₂}Zr(NMe₂)₂ (10, rac/meso = 2/3) and {1,2-(3-indenyl)₂-C₂H₄}M(NMe₂)₂ (11, M = Zr, rac/meso = 7.3/1; 12, M = Hf, rac/meso = 7/1) in 70-90% NMR yields.

RE.CNT 95 THERE ARE 95 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 27 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:683209 CAPLUS
DN 131:310940
TI Preparation method of bridged metallocene compounds
IN Hori, Junichi; Murata, Kunihiro; Yoshida, Masahiro
PA Kanto Kagaku K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 37 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11292891	A2	19991026	JP 1998-107170	19980403
PRAI	JP 1998-107170		19980403		
OS	MARPAT 131:310940				
GI					

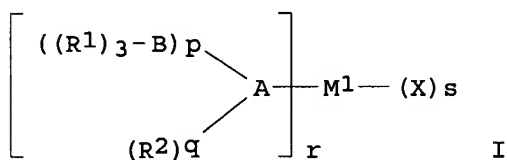


AB Title compds., useful as catalysts for olefin polymerization or organic synthesis, are prepared by reaction of Group 4 transition metal compds. I and (M₂)+(L₁)-C(L₂)-(M₂) and are represented by the general formula II, where M₁ = Group 4 transition metal; A = Group 15 or 16 heteroatom; B = Group 14 typical element; R₁, R₂ = (heteroatom-containing) C₁-30 hydrocarbyl or H; X = halogen or O- or S-containing C₁-10 group; p, q = 0, 1, or 2; p + q = 1 or 2; r = 1 or 2; s = 2 or 3; L₁, L₂ = (substituted) cyclopentadienyl, (substituted) indenyl, (substituted) azulenyl, or (substituted) fluorenyl; C = C₁-20 hydrocarbyl, (C₁-20 hydrocarbyl-containing) silylene, oligosilylene, or germirene; M₂ = Group 1 or 2 typical metal; and t = s-2, etc. Halogenated metallocene compds. III (Y = halogen) are stereoselectively prepared from II. Thus, (N-methylanilide)zirconium trichloride bistetrahydrofuran was prepared from N-methylaniline, ZrCl₄, and THF, and reacted with 1,2-bis(3-indenyl)ethane dilithium salt to give

ethylenebis(1-indenyl)zirconium (N-methylanilide) chloride.

L5 ANSWER 28 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:680136 CAPLUS
DN 131:310939
TI Organic transition metal chemical compound
IN Hori, Junichi; Murata, Kunihiro; Yoshida, Masahiro
PA Kanto Kagaku K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 37 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11292890	A2	19991026	JP 1998-107169	19980403
PRAI	JP 1998-107169		19980403		
OS	MARPAT 131:310939				
GI					



AB The title compds. comprise I (M = group 4 metal; A = group 15 heteroatom; B = Si, Ge, Sn, Pb; R¹ = H, C1-20 hydrocarbyl which may contain heteroatoms; R² = H, C1-20 hydrocarbyl; X = halogen; p, q = 0-2, p + q = 2; r = 1, 2; s = 2, 3, etc.). (N-Methylanilide)zirconium trichloride was prepared from N-methylaniline and ZrCl₄, then reacted with dimethylsilylene bis indene dilithium salt to give dimethylsilylene bis (1-indenyl) zirconium (N-methylanilide) chloride.

L5 ANSWER 29 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:8036 CAPLUS
DN 130:66906
TI Metallocene amide halides as catalysts for (co)polymerization
IN Munck, Florian; Zeiss, Werner; Hartmann, Christoph; Vogel, Alexander; Detig, Andreas
PA Peroxid-Chemie G.m.b.H., Germany
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9856831	A1	19981217	WO 1998-EP3406	19980608
	W: BR, CA, JP, NO, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2293490	AA	19981217	CA 1998-2293490	19980608
	EP 990003	A1	20000405	EP 1998-932131	19980608
	EP 990003	B1	20020904		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT, IE, FI				
	EP 1028123	A2	20000816	EP 2000-101864	19980608
	EP 1028123	A3	20041201		
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT, IE, FI				
	BR 9810432	A	20000919	BR 1998-10432	19980608
	JP 2002504940	T2	20020212	JP 1999-501552	19980608
	AT 223441	E	20020915	AT 1998-932131	19980608
	PT 990003	T	20030131	PT 1998-932131	19980608
	ES 2182336	T3	20030301	ES 1998-932131	19980608
	NO 9906038	A	20000203	NO 1999-6038	19991208

US 6316562 B1 20011113 US 2000-445198 20000121
PRAI DE 1997-19724465 A 19970610
EP 1998-932131 A3 19980608
WO 1998-EP3406 W 19980608

OS MARPAT 130:66906

AB The title compds., with high catalytic activity, have the formula
R₂NM(L₂)X (X = metallocene ligand, M = Group III-V metal or lanthanide, R
= C1-8 hydrocarbyl or together form a heterocyclic ring, X = F, Cl, Br,
I). Refluxing 1.368 mmol (Me₂N)₂TiCl₂ with 1.368 mmol
(tetramethylcyclopentadienyldimethylsilyl)tert-butylamine in mesitylene
for 75 min gave dichloro[dimethylsilyl(tetramethylcyclopentadienyl)tert-
butylamido]titanium(IV), refluxing of which (0.516 mmol) with 0.510 mmol
Me₂NLi in hexane for 90 min gave (chloro)(dimethylamido)[dimethylsilyl(tet-
ramethylcyclopentadienyl)tert-butylamido]titanium(IV). Use of the
catalysts in the production of isotactic polypropylene is exemplified.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 30 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:527109 CAPLUS

DN 129:176102

TI Preparation of a metallocene catalyst system

IN Fritze, Cornelia; Bohnen, Hans; Kuber, Frank

PA Hoechst A.-G., Germany; Basell Polyolefine GmbH

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 856523	A1	19980805	EP 1998-100330	19980110
	EP 856523	B1	20040714		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	DE 19703478	A1	19980806	DE 1997-19703478	19970131
	AT 271070	E	20040715	AT 1998-100330	19980110
	US 6177376	B1	20010123	US 1998-15130	19980129
	JP 10218921	A2	19980818	JP 1998-18456	19980130
	BR 9800515	A	19990706	BR 1998-515	19980130
PRAI	DE 1997-19703478	A	19970131		

OS MARPAT 129:176102

AB A metallocene is treated with a compound bearing a hydrocarbyl group in a
solvent to form a hydrocarbyl group-substituted (via a σ bond)
metallocene, which is used in solution, without isolation or purification, with an
activator as a polymerization catalyst. Thus, [(dimethylsilylene)bis(2-methyl-4-
phenylindenyl)]zirconium dichloride was treated with MeMgBr in toluene to
form [(dimethylsilylene)bis(2-methyl-4-phenylindenyl)]dimethylzirconium
(I), which was activated by addition of PhN+HMe₂ -B(C₆F₅)₄. A similar
I-containing catalyst deposited on SiO₂ was used to polymerize propylene at
60°, yielding 126 kg polypropylene/g metallocene per h.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 31 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:527097 CAPLUS

DN 129:148829

TI Preparation of 2-alkyl-2,3-dihydro-1H-benz[e]indene-1-one derivatives

IN Woudenberg, Richard Herman; Andringa, Heert

PA Akzo Nobel N. V., Neth.

SO Eur. Pat. Appl., 5 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 856506	A1	19980805	EP 1997-200302	19970204
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO

US 5942636 A 19990824 US 1998-12164 19980122
 PRAI EP 1997-200302 A 19970204

OS CASREACT 129:148829

AB 2-Alkyl-2,3-dihydro-1H-benz[e]indene-1-ones(I) were prepared by condensation of naphthalene derivs. with active esters of 2-alkyl-2-propenoic acids. I, obtained in high yield and substantially free from isomers, are intermediates in the preparation of rac-di-Me bis(2-alkyl-1H-benz[e]indenyl)silandiyl zirconium dichloride complexes. Thus, a solution of AlCl₃ in CH₂Cl₂ at -30° was treated with naphthalene and 2-methyl-2-propenoyl chloride over 1.5 h followed by 1h addnl. stirring to give 84% 2,3-Dihydro-2-methyl-1H-benz[e]indene-1-one.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 32 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:228998 CAPLUS

DN 128:270733

TI Process for synthesizing metallocene compounds

IN Murata, Kunihiro; Hori, Junichi; Yoshida, Masahiro

PA Kanto Kagaku K. K., Japan

SO Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 834514	A2	19980408	EP 1997-116929	19970930
	EP 834514	A3	19991124		
	EP 834514	B1	20031022		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

	JP 10109996	A2	19980428	JP 1996-281644	19961004
	JP 3694371	B2	20050914		
	US 5892075	A	19990406	US 1997-936169	19970923
PRAI	JP 1996-281644	A	19961004		

OS MARPAT 128:270733

AB The object of the invention resides in the development of an improved process for synthesizing metallocene compds. useful as olefin polymerization catalysts. E.g., bis(N-methylanilido)zirconium dichloride-2THF, prepared in 79% yield from PhNHMe and ZrCl₄ in THF, was complexed with 1,2-di-3-indenylethane to give 98% ethylenedi-1-indenylzirconium bis(N-methylanilide), which was chlorinated with gaseous HCl in CH₂Cl₂ to give 62% ethylenedi-1-indenylzirconium dichloride. Similarly prepared was 51% ethylenedi-1-indenylzirconium dichloride.

L5 ANSWER 33 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:176351 CAPLUS

DN 128:217743

TI Metallocene catalysts, manufacture of stereoregular propylene polymers having high and unimodal molecular weight distribution using the catalysts, and the propylene polymers

IN Tayano, Takao; Uchino, Hidemi; Ioku, Atae

PA Mitsubishi Chemical Industries Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10072506	A2	19980317	JP 1996-229529	19960830
PRAI	JP 1996-229529		19960830		

OS MARPAT 128:217743

AB The propylene (I) polymers are manufactured by polymerizing I using the catalysts containing (A) Q1(C₅H₄-aR_{1a})(C₅H₄-bR_{2b})MX₁Y₁ (C₅H₄-aR_{1a}, C₅H₄-bR_{2b} = conjugated 5-membered ring ligands; Q1 is a binding group crosslinking the ligands, i.e. C1-20 divalent hydrocarbon residue, C1-20 hydrocarbyl-containing

silylene, C1-20 hydrocarbyl-containing germylene; M = Zr, Hf; X1, Y1 = H, halo, C1-20 hydrocarbyl, C1-20 alkoxy, C1-20 alkylamide, trifluoromethanesulfonyl, P- or Si-containing C1-20 hydrocarbyl; R1, R2 = adjacent C1-20 hydrocarbyl, halo, alkoxy, hydrocarbyl containing P, Si, N, B; 2 of adjacent R1 or 2 of adjacent R2 may bind to form rings, resp.; a, b = 0-4; the 2 ligands are asym. in terms of relative configuration through groups Q1 to the planes containing M), (B) Al oxy compds., Lewis acids, or ionic compds. having exchangeability of components A into cations, and (C) compds. capable of hydrogenation or compds. which react with other compds. to exhibit the same capability. Thus, I was polymerized in the presence of a catalyst prepared from dimethylsilylenebis(2-methyl-4-phenylindenyl)zirconium dichloride, bis(cyclopentadienyl)titanium dichloride, triisobutylaluminum, and Et3Al to give polypropylene (PP) with Mw 63.8 + 104, Mw/Mn 2.69, and isotactic pentad fraction (mm; by 13C-NMR) 0.968 and to show catalytic activity 516 g-PP/g-catalyst-h.

L5 ANSWER 34 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1998:115900 CAPLUS
 DN 128:154227
 TI Preparation of metallocene compounds
 IN Tsutsumi, Kunihiro; Hori, Junichi; Yamazaki, Yasuhiro; Sugawara, Yasuaki; Murata, Kunihiro; Yoshida, Masahiro
 PA Kanto Kagaku, Japan
 SO Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10045786	A2	19980217	JP 1996-218089	19960801
PRAI	JP 1996-218089		19960801		

OS CASREACT 128:154227

AB Characterized is a process for preparation of the title compds. (I) by treatment of cyclopentadiene, indene, fluorene, or bridged compds. thereof with alkyl lithium and reacted with transition metal salts. I, useful as catalysts in the production of polyolefin, are prepared in an industrial manner efficiently and economically. Thus, 1,1-cyclopentadienyl-(9-fluorenyl)diphenylmethane was treated with n-BuLi in a mixture of toluene and THF, and further reacted with zirconium chloride to give 81% diphenylmethene (9-fluorenyl) (cyclopentadiene) zirconium chloride.

L5 ANSWER 35 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1997:234295 CAPLUS
 DN 126:225666
 TI Activation of metallocene catalyst systems and impurity removal for high polymerization of olefin
 IN Burkhardt, Terry John; Brandley, William Barry
 PA Exxon Chemical Patents Inc., USA; Hoechst A.-G.
 SO PCT Int. Appl., 27 pp.
 CODEN: PIXXD2

DT Patent
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9705178	A1	19970213	WO 1996-US11904	19960718
	W: CA, CN, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US	5635437	A	19970603	US 1995-506995	19950728
CA	2227897	AA	19970213	CA 1996-2227897	19960718
EP	842205	A1	19980520	EP 1996-924596	19960718
EP	842205	B1	20010214		
	R: BE, DE, ES, FR, GB, IT, NL				
CN	1196065	A	19981014	CN 1996-196901	19960718
CN	1116313	B	20030730		
JP	11510203	T2	19990907	JP 1997-507644	19960718
ES	2153965	T3	20010316	ES 1996-924596	19960718
PRAI	US 1995-506995	A	19950728		

WO 1996-US11904 W 19960718
 OS MARPAT 126:225666
 AB In an improved catalyst preparation, removing solid impurities (salts) from a solution of activated metallocene, where activation has the effect of solubilizing the metallocene but not the impurities, the resulting catalyst system is higher in activity and produces polymer having excellent particle morphol. with little or no reactor fouling. SiO2-supported dimethylsilyl bis(2-methylbenzoindenyl)zirconium dichloride (0.1 g)-Me aluminoxane system (10%) (filtered after activation) gave high polymer at >2 kg/g cat/h.

L5 ANSWER 36 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1997:105196 CAPLUS
 DN 126:118315
 TI Transition metal complexes as catalysts for olefin polymerization
 IN Fritze, Cornelia; Herrmann, Hans-Friedrich; Erker, Gerhard; Ruwwe, Johannes
 PA Hoechst A.-G., Germany
 SO Eur. Pat. Appl., 19 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 748821	A1	19961218	EP 1996-109180	19960607
	EP 748821	B1	19981104		
	R: AT, BE, DE, ES, FR, GB, IT, NL				
	DE 19525125	A1	19970116	DE 1995-19525125	19950712
	AT 172992	E	19981115	AT 1996-109180	19960607
	ES 2124054	T3	19990116	ES 1996-109180	19960607
	JP 09003084	A2	19970107	JP 1996-148973	19960611
	CN 1144808	A	19970312	CN 1996-107853	19960611
	BR 9602734	A	19980422	BR 1996-2734	19960611
	US 5807936	A	19980915	US 1996-662040	19960612
PRAI	DE 1995-19521335	A	19950612		
	DE 1995-19525125	A	19950712		

OS MARPAT 126:118315
 AB The complexes Ln(XmARq)sMYr (A = Group IIIA, VA, or VIA element; L = electron-donor π -ligand; M = Group IIIB, IVB, VB, or VIB metal; R = hydrocarbyl group; X = heteroatom or hydrocarbyl group; Y = H, halogen, C-containing group; m = 0 or 1; n = 1-4; q = 1-5; s = 1-20) are prepared for use as catalysts in olefin polymn (no data). Stirring 3.40 mmol zirconocene dichloride with 7.1 mmol BuLi in THF for 24 h at -78°, adding 10.2 mmol 2-butyne, and stirring until room temperature was reached gave 98% 1-bis(η 5-cyclopentadiene)zircona-2,3,4,5-tetramethylcyclopentadiene, stirring of which (2 mmol) with 2 mmol (C6F5)3B in PhMe gave 1.12 g [tris(pentafluorophenyl)(η 5-cyclopentadienylidene)borato](η 5-cyclopentadienyl)(1,2,3-trimethylpenta-1,3-dienyl)zirconium as a yellow powder soluble in PhMe, CH2Cl2 and THF.

L5 ANSWER 37 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1996:708299 CAPLUS
 DN 125:329746
 TI Prepolymerized olefin catalyst and hydrogen fouling control agent
 IN Brinen, Jeffrey Lawrence
 PA Exxon Chemical Patents Inc., USA; Hoechst A.-G.
 SO PCT Int. Appl., 25 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9628479	A1	19960919	WO 1996-US2300	19960220
	W: BR, CA, CN, JP, KR, RU				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6391817	B1	20020521	US 1995-401514	19950310
	EP 813554	A1	19971229	EP 1996-904652	19960220

EP 813554 B1 20040407
 R: BE, DE, ES, FR, GB, IT, NL
 BR 9607227 A 19980707 BR 1996-7227 19960220
 PRAI US 1995-401514 A 19950310
 US 1993-174498 B2 19931228
 WO 1996-US2300 W 19960220
 OS MARPAT 125:329746
 AB Title catalyst comprises combining a supported metallocene catalyst system, an alpha olefin monomer feed, and H under suitable prepolymer. reaction conditions. This method is also useful for the control of agglomeration during a prepolymer. reaction. The catalyst, silica supported bis (1,3-methylbutylcyclopentadienyl)zirconium dichloride and Me aluminoxane cocatalyst were introduced to a reactor with 6 mol% H in ethylene and after 90 min the prepolymer. catalyst was isolated without reactor fouling.

L5 ANSWER 38 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1996:658654 CAPLUS
 DN 125:276900

TI Manufacture of α -olefin polymers in the presence of highly active catalysts containing transition metal complexes and aluminoxanes

IN Sugano, Toshihiko
 PA Mitsubishi Chemical Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08208733	A2	19960813	JP 1995-14440	19950131
PRAI	JP 1995-14440		19950131		

AB Polymers are manufactured by contacting C2-20 α -olefins with catalysts obtained from (A) particulate organic supports and (B) organic aluminoxy compds. by treating the contact products at $\geq 35^\circ$ and (C) Groups 4-6 transition metal compds. having ≥ 1 conjugated 5-membered ring ligand. Thus, 3.2 g Me iso-Bu aluminoxane and 10 g porous polyethylene were treated at 50° for 1 h, cooled to 0° , and treated with dimethylsilylenebis(2-methylindenyl)zirconium dichloride to give a solid catalyst. Then, propylene was polymerized at 70° for 2 h in the presence of this catalyst to give a polymer with m.p. 133.4° , triad fraction 0.90, mol. distribution 2.31, and average grain size 0.9 mm.

L5 ANSWER 39 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1996:488804 CAPLUS
 DN 125:143017

TI A method of preparing high purity racemic metallocene alkyls and use thereof

IN Fisher, Richard Allen; Burkhardt, Terry John
 PA Exxon Chemical Patents Inc., USA
 SO PCT Int. Appl., 26 pp.
 CODEN: PIXXD2

DT Patent
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9619488	A1	19960627	WO 1995-US16689	19951221
	W: AU, CA, JP, KR, SG, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9645271	A1	19960710	AU 1996-45271	19951221
PRAI	US 1994-361266	A	19941221		
	WO 1995-US16689	W	19951221		

AB An improved synthesis for the preparation of high purity, racemic metallocene alkyls substantially free of alkali metal salts and meso isomer is disclosed. The process comprises (a) forming a reaction product in the presence of a solvent of a cyclopentadienyl ligand metal salt and a perhalogenated Group 4-6 transition metal compound or its etherate complex; (b) combining the product of (a) with at least two molar equivalents of an

alkylating agent; (c) separating the solution from the subsequently formed solids; (d) removing the solvent to recover the metallocene alkyl compound, and; (e) washing the metallocene alkyl with solvent or solvent mixts. The metallocene alkyl compds. are particularly suitable for use as addition or insertion polymerization catalysts when activated by a suitable polymerization cocatalyst. Thus, lithiation of [bis(2-methylbenz[e]indenyl)]dimethylsilane with BuLi in Et₂O/hexane followed by treatment with in PhMe gave bright yellow solution Grignard methylation of the obtained solution with MeMgBr in Et₂O followed by treatment with Me₃SiCl in dioxane gave title compound, 24% rac-dimethylsilanediylbis(2-methylbenz[e]indenyl)zirconium di-Me.

L5 ANSWER 40 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:256126 CAPLUS
DN 124:289888

TI Preparation of bridged metallocenes
IN Aulbach, Michael; Kueber, Frank
PA Hoechst A.-G., Germany
SO Ger., 5 pp.
CODEN: GWXXAW

DT Patent
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4434640	C1	19960201	DE 1994-4434640	19940928
	EP 704454	A2	19960403	EP 1995-114876	19950921
	EP 704454	A3	19990519		
	EP 704454	B1	20010808		
	R: DE, ES, FR, GB				
	US 5831105	A	19981103	US 1995-532514	19950922
	BR 9504184	A	19960806	BR 1995-4184	19950927
	RU 2161621	C2	20010110	RU 1995-116655	19950927
	JP 08113584	A2	19960507	JP 1995-250884	19950928
PRAI	DE 1994-4434640	A	19940928		

OS CASREACT 124:289888; MARPAT 124:289888

AB The preparation of title compds., useful as olefin polymerization catalyst, is described. Thus, lithiation of 2-methyl-4,5-benzoindene with BuLi in THF/PhMe followed by silylation with Me₂SiCl₂ gave dimethylbis(2-methyl-4,5-benzoindenyl)silane. Lithiation of the later with BuLi without isolation followed by treatment with ZrCl₄ gave 31% title compound, dimethylsilanediylbis(2-methyl-4,5-benzoindenyl)zirconium dichloride.

L5 ANSWER 41 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:170744 CAPLUS
DN 124:203315

TI Zwitterionic transition metal compounds, their preparation and use as olefin polymerization catalysts
IN Erker, Gerhard; Temme, Bodo; Aulbach, Michael; Bachmann, Bernd; Kueber, Frank
PA Hoechst A.-G., Germany
SO Ger. Offen., 10 pp.
CODEN: GWXXBX

DT Patent
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4420456	A1	19951214	DE 1994-4420456	19940613
	AU 9520278	A1	19951221	AU 1995-20278	19950524
	AU 691589	B2	19980521		
	EP 687682	A1	19951220	EP 1995-108411	19950601
	EP 687682	B1	20000119		
	R: AT, BE, DE, ES, FR, GB, IT, NL, SE				
	EP 992516	A2	20000412	EP 1999-110599	19950601
	EP 992516	A3	20021030		
	R: AT, BE, DE, ES, FR, GB, IT, NL, SE				
	ES 2142426	T3	20000416	ES 1995-108411	19950601
	TW 387905	B	20000421	TW 1995-84105602	19950605
	US 5792819	A	19980811	US 1995-475940	19950607

US 6002032	A	19991214	US 1995-478900	19950607
FI 9502857	A	19951214	FI 1995-2857	19950609
RU 2140922	C1	19991110	RU 1995-109885	19950609
CA 2151558	AA	19951214	CA 1995-2151558	19950612
NO 9502307	A	19951214	NO 1995-2307	19950612
NO 308746	B1	20001023		
ZA 9504829	A	19960130	ZA 1995-4829	19950612
BR 9502776	A	19960312	BR 1995-2776	19950612
JP 08003212	A2	19960109	JP 1995-145881	19950613
CN 1119648	A	19960403	CN 1995-107172	19950613
CN 1069646	B	20010815		
PRAI DE 1994-4420456	A	19940613		
EP 1995-108411	A3	19950601		

OS MARPAT 124:203315

AB The zwitterionic compds. LnM+YZA-Rm [A = Group IB, IIB, III, IVA, V, VIB, VIIB, or VIIIB element; each L = π -bonded ligand, electron donor (2 L may be joined by a bridging group); M = Group III-VI transition metal; each R = perhalocarbyl; Y = hetero atom, hydrocarbon residue; Z = hydrocarbon residue; m = 1-5, n = 1-4] are prepared by reaction of LnMX_2 (X = halogen) with YZ_2 -, followed by treatment with AR_m . Thus, [(dimethylsilylene)bis(2-methyl-4,5-benzindenyl)]zirconium dichloride and (2-butene-1,4-diyl)magnesium-2THF were stirred in toluene at -40° and allowed to warm to room temperature, filtered, and evaporated to dryness to give a red powder, which was redissolved in toluene and treated with tris(pentafluorophenyl)borane to give a zwitterion $\text{L}_2\text{Zr+CH}_2\text{CH:CHCH}_2\text{B-}$ (C_6F_5)₃, where L_2 is the bridged bis(benzindenyl) ligand. This zwitterion, formed in situ, was used with iso-Bu₃Al to polymerize propylene, giving isotactic polypropylene with weight-average mol. weight 298,000 and polydispersity 2.2. Other related zwitterions produced syndiotactic polypropylene.

L5 ANSWER 42 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1996:113337 CAPLUS

DN 124:148195

TI Applications of isotactic polypropylene, processes and products thereof

IN Mcalpin, James John; Kuo, Jeffrey Wen-Cheng; Hylton, Donald Conway

PA Exxon Chemical Patents, Inc, USA

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9530708	A1	19951116	WO 1995-US5192	19950427
	W: CA, CN, JP, KR, MX				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2187668	AA	19951116	CA 1995-2187668	19950427
	EP 758355	A1	19970219	EP 1995-918309	19950427
	EP 758355	B1	19981209		
	R: BE, DE, ES, FR, GB, IT, NL				
	CN 1152323	A	19970618	CN 1995-192923	19950427
	CN 1073589	B	20011024		
	JP 10503537	T2	19980331	JP 1995-529006	19950427
	JP 3339864	B2	20021028		
	ES 2125016	T3	19990216	ES 1995-918309	19950427
PRAI	US 1994-239150	A	19940506		
	WO 1995-US5192	W	19950427		

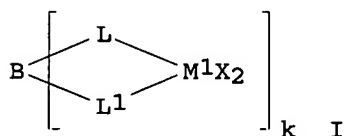
AB A process for forming an oriented structure comprises forming a structure exclusively from isotactic polypropylene produced from metallocene catalysts; and orienting the structure by applying stress at a temperature in the range of 20-35° above the heat distortion temperature of the polypropylene. The resulting articles have comparable shear modulus and heat distortion temperature values to those of conventional polypropylene, but in which the fabrication of the articles is achieved at temps. much lower than possible for conventional polypropylene.

L5 ANSWER 43 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:772666 CAPLUS

DN 123:169902
 TI Preparation of metallocene derivatives as olefin polymerization catalysts
 IN Kueber, Frank; Aulbach, Michael; Bachmann, Bernd; Spaleck, Walter; Winter, Andreas
 PA Hoechst A.-G., Germany
 SO Eur. Pat. Appl., 36 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 654476	A1	19950524	EP 1994-118188	19941118
	EP 654476	B1	20010124		
	R: AT, BE, DE, ES, FR, GB, IT, NL, SE				
	DE 4340018	A1	19950601	DE 1993-4340018	19931124
	DE 4344687	A1	19950629	DE 1993-4344687	19931227
	DE 4344708	A1	19950629	DE 1993-4344708	19931227
	IN 187783	A	20020622	IN 1994-MA1130	19941117
	AT 198893	E	20010215	AT 1994-118188	19941118
	ES 2154664	T3	20010416	ES 1994-118188	19941118
	FI 9405486	A	19950525	FI 1994-5486	19941122
	CA 2136493	AA	19950525	CA 1994-2136493	19941123
	NO 9404491	A	19950526	NO 1994-4491	19941123
	AU 9478991	A1	19950601	AU 1994-78991	19941123
	AU 678862	B2	19970612		
	ZA 9409285	A	19950630	ZA 1994-9285	19941123
	BR 9404707	A	19950801	BR 1994-4707	19941123
	CN 1107162	A	19950823	CN 1994-118933	19941123
	CN 1075819	B	20011205		
	US 5585508	A	19961217	US 1994-344730	19941123
	RU 2147587	C1	20000420	RU 1994-41192	19941123
	JP 07215987	A2	19950815	JP 1994-290088	19941124
	JP 3580874	B2	20041027		
	US 5693730	A	19971202	US 1995-473079	19950607
	US 5776851	A	19980707	US 1995-480165	19950607
PRAI	DE 1993-4340018	A	19931124		
	DE 1993-4344687	A	19931227		
	DE 1993-4344708	A	19931227		
	US 1994-344730	A3	19941123		
OS	CASREACT 123:169902; MARPAT 123:169902				
GI					



AB The preparation of multinuclear metallocene derivs. I [M1 = Group IVb, Vb, VIb transition metal; X = same or different H, C1-10 alkyl, alkoxy, C6-10 aryl, C6-10 aryloxy, C2-10 alkenyl, C7-40 arylalkyl, C7-40 alkylaryl, C8-40 arylalkenyl, OH, halo, pseudohalo; L, L1 = same or different π -ligand, electron donor; $k \geq 2$; B = substituted organoelement or hydrocarbon, etc.], useful as catalyst for olefin polymerization, is described. Thus, lithiation of 2-methyl-7-phenylindene with BuLi in PhMe followed by treatment with 1,6-bis(methyldichlorosilyl)hexane gave a ligand system which on further lithiation with BuLi followed by metalation with ZrCl₄ gave 47% title catalyst, 1,6-(bis[methylsilylbis(2-methyl-7-phenylindenyl)]zirconium dichloride)hexane. The polymerization of olefins, e.g. propylene, using the prepared catalysts were also described.

L5 ANSWER 44 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1995:713695 CAPLUS
 DN 123:85829
 TI Polyolefin fibers, method of production and fabrics from

IN Stahl, G. Allan; McAlpin, James John
PA Exxon Chemical Patents, Inc., USA
SO PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9428219	A1	19941208	WO 1994-US6017	19940525
	W: AU, CA, CN, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2163788	AA	19941208	CA 1994-2163788	19940525
	CA 2163788	C	20040427		
	AU 9469891	A1	19941220	AU 1994-69891	19940525
	AU 680263	B2	19970724		
	EP 700464	A1	19960313	EP 1994-918668	19940525
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	CN 1128055	A	19960731	CN 1994-192812	19940525
	CN 1069707	B	20010815		
	JP 08510801	T2	19961112	JP 1994-500992	19940525
	JP 2902784	B2	19990607		
	EP 854212	A1	19980722	EP 1998-105966	19940525
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	IN 189149	A	20021221	IN 1994-DE686	19940601
PRAI	US 1993-66737	A	19930525		
	US 1993-164520	A	19931209		
	EP 1994-918668	A3	19940525		
	WO 1994-US6017	W	19940525		

AB Title fibers comprise reactor-grade polyolefins produced by single-site catalysis. Polyolefins with a melt flow rate of ≤ 5000 dg/min and MWD of 1.0-3.5 was also claimed. Isotactic polypropylene with MFR 40 produced using a metallocene catalyst, (catalyst preparation given) was spun at 2000 m/min to give fibers with tenacity of 3.54 g/denier, compared to 1.51 g/denier for a fiber prepared from Ziegler-Natta catalyst-produced polypropylene with MFR 35 spun at 2000 m/min. Spun-bonded and melt blown webs were manufactured using polypropylene produced by single-site catalysis giving improved web strength and better air filtration properties.

L5 ANSWER 45 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:610578 CAPLUS
DN 123:257779

TI Novel transition metal compounds and polymerization catalysts for olefins containing the transition metal compounds and manufacture of polyolefins
IN Fujita, Terunori; Hirose, Takaharu; Saito, Junji; Ueda, Takashi; Kiso, Yoshihisa
PA Mitsui Petrochemical Industries, Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06345809	A2	19941220	JP 1993-136254	19930607
PRAI	JP 1993-136254		19930607		

OS MARPAT 123:257779

GI For diagram(s), see printed CA Issue.

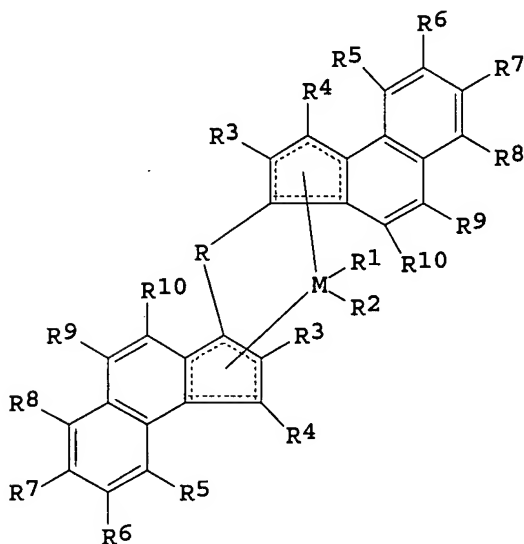
AB Catalysts contain transition metal metallocenes, organic aluminosy compds. and/or compds. reacting with transition metal compds. to form ion pairs, and organoaluminum compds. Thus, zirconocene I was prepared and used in the polymerization of propylene with iso-Bu₃Al and methylaluminumoxane.

L5 ANSWER 46 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:54699 CAPLUS
DN 120:54699

TI Metallocenes having benzo-fused indenyl derivatives as ligands, processes for their preparation and their use as olefin polymerization catalysts
IN Rohrmann, Juergen; Dolle, Volker; Winter, Andreas; Kueber, Frank

PA Hoechst A.-G., Germany
 SO Can. Pat. Appl., 44 pp.
 CODEN: CPXXEB
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CA 2084017	AA	19930531	CA 1992-2084017	19921127
	ZA 9209213	A	19930524	ZA 1992-9213	19921127
	AU 9229728	A1	19930603	AU 1992-29728	19921127
	AU 651915	B2	19940804		
	EP 549900	A1	19930707	EP 1992-120287	19921127
	EP 549900	B1	19960821		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
	JP 06184179	A2	19940705	JP 1992-319099	19921127
	JP 3371118	B2	20030127		
	AT 141609	E	19960915	AT 1992-120287	19921127
	ES 2093166	T3	19961216	ES 1992-120287	19921127
	RU 2098423	C1	19971210	RU 1992-4438	19921130
	US 5455366	A	19951003	US 1995-373862	19950117
PRAI	DE 1991-4139595	A	19911130		
	US 1992-980992	B1	19921124		
	US 1994-291078	B1	19940817		
OS	CASREACT 120:54699; MARPAT 120:54699				
GI					



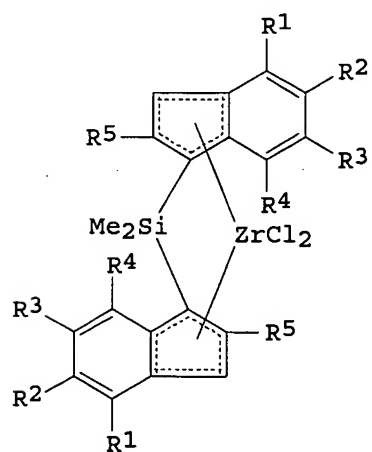
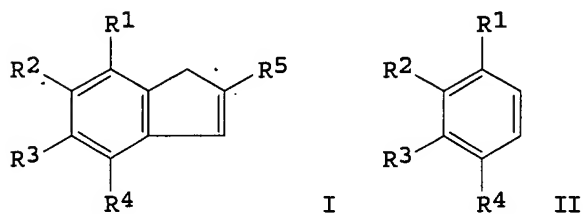
I

AB Compds. of formula I [M = metal of Group IVB, VB, VIB (preferably Zr or Hf), R1 and R2 are identical or different and may include H, alkyl, alkoxy, aryl, alkenyl, OH or halogen; R3 to R10 are identical or different and may include H, halogen, alkyl, aryl or NR12, SR1, OSiR13, SiR13 or PR12 in which R1 is a halogen atom, an alkyl group or an aryl group; in addition, adjacent radicals R4 to R10, with atoms joining them may form an aromatic or aliphatic ring; R is a (substituted) alkylene or heteroatom bridge, e.g., BR11, AlR11, Ge, Sn, O, S, SO, NR11, CO, PR11 or P(O)R11, in which R11 may be H, halogen, alkyl, fluoroalkyl, etc.] are claimed, along with a process for their preparation The process comprises reacting compound I (wherein MR1R2 = nothing) with MX4, eg., TiCl4 (M = Ti, X = Cl). I are shown to polymerize olefins, e.g., propylene in the presence of methylaluminumoxane.

L5 ANSWER 47 OF 47 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1993:650177 CAPLUS
 DN 119:250177
 TI Process for the preparation of substituted indenenes and their use as ligands for metallocene olefin polymerization catalysts
 IN Rohrmann, Juergen; Kueber, Frank

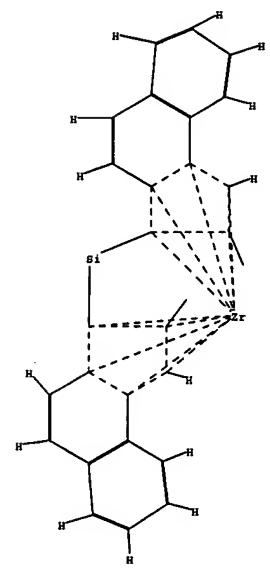
PA Hoechst A.-G., Germany
 SO Eur. Pat. Appl., 20 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<hr/>					
PI	EP 545304	A1	19930609	EP 1992-120289	19921127
	EP 545304	B1	20020619		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
	ZA 9209215	A	19930527	ZA 1992-9215	19921127
	CA 2084016	AA	19930531	CA 1992-2084016	19921127
	CA 2084016	C	20040622		
	AU 9229727	A1	19930603	AU 1992-29727	19921127
	AU 655088	B2	19941201		
	JP 06206890	A2	19940726	JP 1992-319101	19921127
	JP 3290218	B2	20020610		
	AT 219494	E	20020715	AT 1992-120289	19921127
	JP 2002226405	A2	20020814	JP 2001-379159	19921127
	JP 3434288	B2	20030804		
	ES 2177523	T3	20021216	ES 1992-120289	19921127
	RU 2103250	C1	19980127	RU 1992-4483	19921130
	US 5840948	A	19981124	US 1995-462587	19950605
	US 5852142	A	19981222	US 1995-462588	19950605
	US 6051522	A	20000418	US 1995-464459	19950605
	US 5929264	A	19990727	US 1997-890942	19970710
PRAI	DE 1991-4139594	A	19911130		
	US 1992-980993	B1	19921124		
	JP 1992-319101	A3	19921127		
	US 1994-291738	B3	19940817		
	US 1995-462587	A1	19950605		
OS	CASREACT 119:250177; MARPAT 119:250177				
GI					



AB A process for the preparation of indene derivs. of formula I wherein R1-R5 are the same or different and may be H, alkyl, aryl, alkoxy, haloaryl, etc., comprises treatment of aryl compds. II with R5CMe(X1)C(O)X2 [X1, X2 = halo; e.g., X = Br, R5 = H] in the presence of a Friedel-Crafts catalyst,

e.g., AlCl_3 , to give the corresponding indanone, followed by a reductive elimination with NaBH_4 . Silylation of I by sequential treatment with BuLi and diorganodichlorosilanes gave a bis(indenyl)silane intermediate which upon treatment with ZrCl_4 gave silanediylmetallocene complexes such as III. III were examined for catalytic activity in the polymerization of propylene.



10/532,511

(FILE 'HOME' ENTERED AT 11:26:00 ON 28 NOV 2005)

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L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SEARCH INITIATED 11:26:36 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 3 TO 163

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

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FULL SCREEN SEARCH COMPLETED - 52 TO ITERATE

100.0% PROCESSED 52 ITERATIONS 8 ANSWERS

SEARCH TIME: 00.00.01

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SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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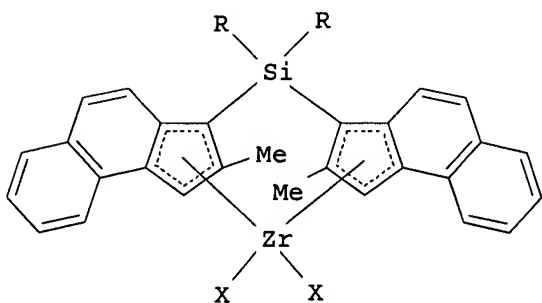
=> s l3

L4 2 L3

=> d 1-2 bib abs

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:370944 CAPLUS
DN 140:391377
TI Racemoselective synthesis of rac-diorganosilylbis(2-methylbenzo[e]indenyl)zirconium compounds
IN Damrau, Hans-Robert-Hellmuth; Mueller, Patrik; Garcia, Valerie; Sidot, Christian; Tellier, Christian; Lelong, Jean-Francois
PA Basell Polyolefine G.m.b.H., Germany
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004037840	A1	20040506	WO 2003-EP11681	20031022
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	DE 10250060	A1	20040506	DE 2002-10250060	20021025
	EP 1554297	A1	20050720	EP 2003-775212	20031022
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRAI	DE 2002-10250060	A	20021025		
	US 2002-431805P	P	20021209		
	WO 2003-EP11681	W	20031022		
OS	CASREACT 140:391377; MARPAT 140:391377				
GI					

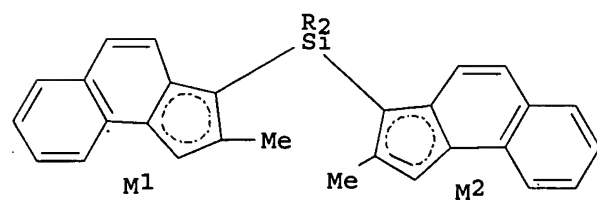
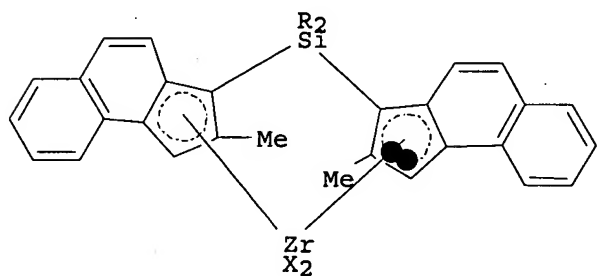


I

AB The present invention relates to a specific process for the diastereoselective synthesis of racemic diorganosilylbis(2-methylbenzo[e]indenyl)zirconium compds. I, by reacting the silyl-bridged bisindenyl ligand with a dihalozirconiumbis(3,5-di-tert-butylphenoxide) base adduct to form the diorganosilylbis(2-methylbenzo[e]indenyl)zirconium bis(3,5-di-tert-butylphenoxide) and subsequently replacing the phenoxide groups by X using suitable replacement reagents to give the compound I; where the substituents X can be identical or different and are each F, Cl, Br, I or linear, cyclic or branched C1-10-alkyl; and the substituents R can be identical or different and are each linear, cyclic or branched C1-10-alkyl or C6-10-aryl; and also to the use of these compds. as catalysts.

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:367255 CAPLUS
 DN 140:391374
 TI Process for racemoselective preparation of racemic, silyl-bridged
 diorganosilylbis(2-methylbenz[e]indenyl)zirconium complexes
 IN Damrau, Hans-Robert-Hellmuth; Garcia, Valerie; Sidot, Christian; Mueller,
 Patrik; Tellier, Christian; Lelong, Jean-Francois
 PA Basell Polyolefine GmbH, Germany
 SO Ger. Offen., 16 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10250060	A1	20040506	DE 2002-10250060	20021025
	WO 2004037840	A1	20040506	WO 2003-EP11681	20031022
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1554297	A1	20050720	EP 2003-775212	20031022
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	DE 2002-10250060	A	20021025		
	US 2002-431805P	P	20021209		
	WO 2003-EP11681	W	20031022		
OS	CASREACT 140:391374; MARPAT 140:391374				
GI					



AB Racemic zirconocene complexes I [R = (un)branched or cyclic C1-10 alkyl,
 C6-10 aryl; X = F, Cl, Br, iodo or (un)branched or cyclic C1-10 alkyl],
 useful as polymerization catalysts or catalysts for stereoselective syntheses (no
 data), are prepared by reaction of silyl-bridged bis(indenyl) ligands II
 (same R; M1, M2 = monovalent alkali metal cation; M1M2 = divalent alkaline
 earth metal cation) with [3,5-(Me3C)2C6H3O]2Zr(LB)Cl2 (III; LB = Lewis

base) to afford I [same R; X = OC₆H₃(CMe₃)_{2-3,5}] (IV) and subsequent substitution of the phenolato groups with X by a suitable cleavage reagent. 2-Methylbenz[e]indene is deprotonated by alkali metal or alkaline earth metal alkyls and then reacted with R₂SiY₂ (same R; Y = F, Cl, Br, iodo) and again deprotonated to afford the silyl-bridged ligand II. Preferably, no intermediates are isolated during the claimed processes. The racemic zirconocene complexes IV and their use as catalysts or as constituents of catalysts for the polymerization of olefinically unsatd. compds. or as reagents or catalysts in stereoselective synthesis are also claimed. In an example, treating a suspension of 27.46 mmol ZrCl₄ in 100 mL PhMe and 4.5 g THF with a solution of 54.91 mmol 3,5-(Me₃C)₂C₆H₃OLi (preparation given) in 120 mL PhMe and 4.5 g THF at 4° and then stirring 1.5 h at room temperature, followed by reaction with dilithiated dimethylsilylbis(2-methylbenz[e]indenyl) (preparation given) in 120 mL PhMe and 6.0 g THF and subsequent stirring for 4 h at 80° gave 61% racemic silyl-bridged bis(indenyl) zirconocene phenolate derivative IV (R = Me).

